June 19, 2002

MODIS sensor Working Group (MsWG) Summary

Attendance: Suraiya Ahmad, Bill Barnes, Bob Barnes, Stuart Biggar, Vincent Chiang, Roger Drake, Wayne Esaias, Bob Evans, Gene Feldman, Gerhard Meister, Chris Moeller, Vince Salomonson, Gary Toller, Jack Xiong, Eric Vermote, Zhengming Wan, Joe Esposito

Scheduled Items

Item 1 Terra Status

Formatter Issue

BB) The formatter error rate has reached 7.6M per day. Also getting type 1B errors at about 1 per day (1B error flags indicate that formatter processing has not completed). Type 1B errors may impact the science data. A TIGER team is being formed to provide recommendations.

JX) MCST is investigating 1B error correlation of data loss using L1A data. There is difficulty in getting the data from the DAAC. (*MCST Action*: *Get and analyze L1A data*)

BB) We haven't seen Bside since the last change to Aside but expect the probability of there being any problems (except power supply 1) to be small.

BE) Can the change back to Bside be cross-strapped with the Aside power supply?

RD) SBRS recommends just switching to the Bside formatter. Switching fully to Bside is a much more substantial change and there could be problems in individual components.

BB) There may be political resistance to changing to Bside (fully or in part). There is no assurance that all Bside components are functioning.

RD) From an engineering point of view, the less components changed implies less chance of a bad component.

Item 2 Aqua Status

Science Mode, B-side (T_FPA =89 83K, T_BB controlled)
TEB NEdT consistent with pre-launch
RSB SNR consistent with pre-launch
SD calibration confirms B6 inoperable detectors
YAW Maneuver halfway through (06/14-15 Closed, 06/23-24 Open)
SRCA (06/17-19) test is underway
Others

JX) Band 6 functionality from the SD is consistent with previously known bad detectors: 1-3, 5-9, 11, 15, and 19.
Bands 13 high and 14 high are saturated during SD calibration. Will use method developed on Terra (using EV and SRCA data) to determine calibration factors.
SNR consistent with pre-launch (B18 is okay)
All TEB bands NEdT are in spec except B20-D10 and B36-D05 (product order).
The operating temperature for Aqua is ~285°K.
b_1 vs. scan for mirror side 1 shows all bands good except B21 and one detector in B36
MCST will compare on-orbit with TV2 and TV3 after on-orbit BB warmup/cooldown analysis is completed.

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The gain for Band 5 has been lowered by 10% compared to TV2 RC01. This is consistent with SD calibration data.

BB) First light will occur at ~19:30 June 24; 2002175 (L+52).

JX) There is a possibility of a lunar view (6/21/02) before the NAD opens. MCST can look at Terra/Aqua cross correlation.

RD) Will lunar rolls be done for each instrument on the same day?

JX) Terra will use the same phase angle; Aqua may use a slightly different phase angle. The roll maneuver orbits times will be checked (*MCST Action*)

Around the Table

Participant: Wayne Esaias - Miami has looked at the radiance data off the NAD.

JX) MCST looks at temperature off the NAD.

BE) There is a possible mirror side effect off the NAD.

RD) The mirror side gain variation across channels is down to 2%

JX) Aqua EV scene will indicate if the mirror side effect exists. MCST will send our NAD plots (*MCST Action*)

WE) Are we ready with the new L1B (V4.0.1)

JX) MCST is ready to go when the Ocean team decides to okay the change.

WE) Bob Evans and I will discuss this offline.

Participant: Eric Vermote – We need to get the version numbers for the L1B and L1B LUTs.

JX) MCST will send out the version number summary (*MCST Action: Gary Toller*)

EV) We will prepare correction for B7 surface temperature product, which may be included in L1B at a future time.

Participant: Chris Moeller – The B26 correction breaks down in cases of extreme sun glint. Using Lsat for B5 over Africa in $Aside_1$ wound up overcorrecting but this is better than doing nothing at all.

Participant: Stuart Biggar – We need to know when Aqua and Terra will cross over Red River Valley in order to do in-situ measurements. We will send MCST the RRV coordinates (*MCST Action*)

Participant: Bill Barnes – Next week MsWG meeting is cancelled due to IGARS meeting.
